

Appl. No. 09/817,471
Amdt.. dated Mar. 20, 2004
Reply to Office action of Dec. 23, 2003

Amendments to Drawings:

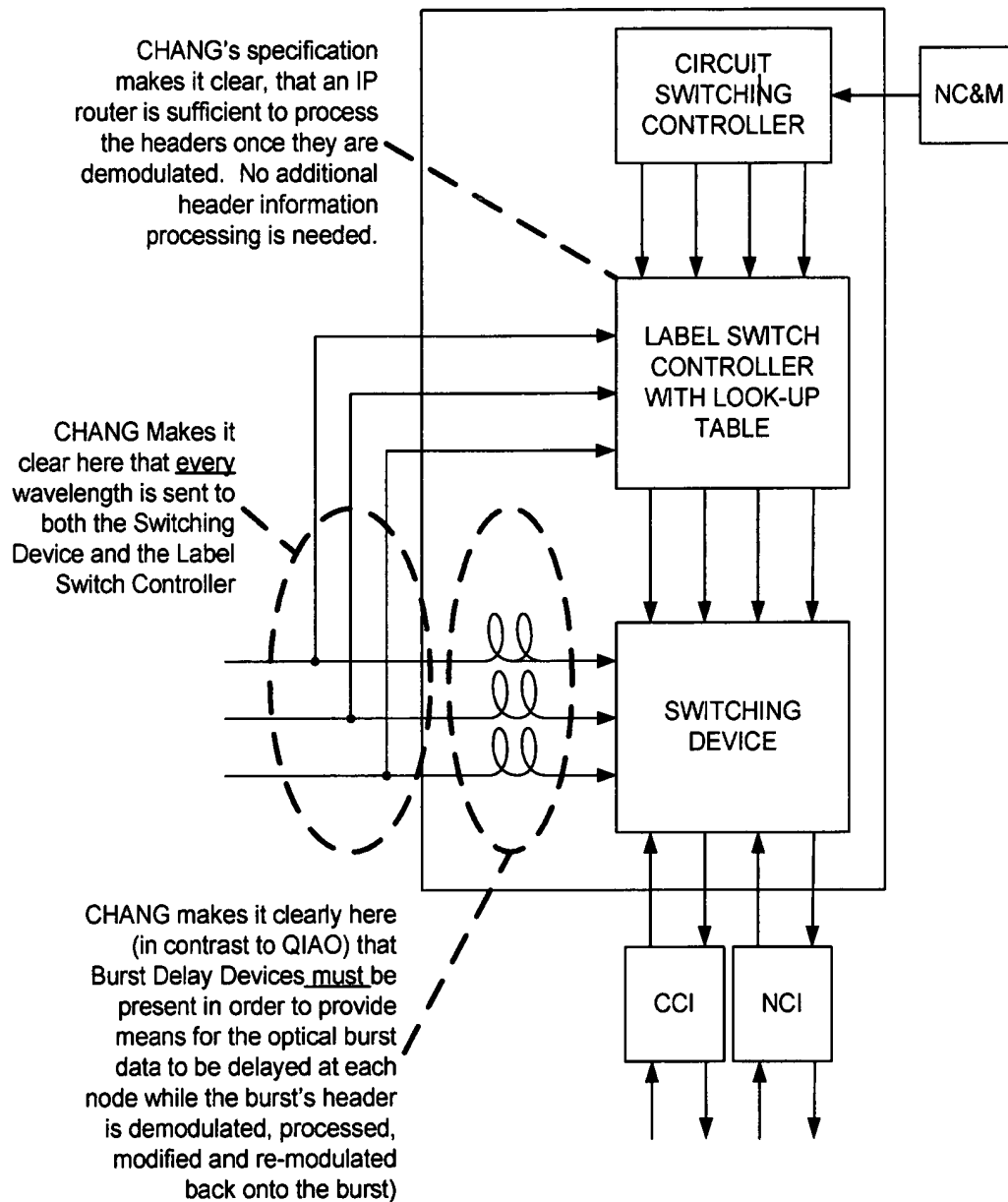
The attached sheet of drawings includes changes to Drawing 1. This sheet, which includes Drawing 1, replaces the original sheet. In Drawing 1, the previously un-labeled items of the control channels and the data wavelengths are now labeled with numbered callouts and the callouts are re-sequenced in the order of their occurrence within the specification.

Attachment: Annotated Sheet Showing Changes to Drawing 1
Replacement Sheet for Drawing 1

The attached sheet of drawings includes changes to Drawing 2. This sheet, which includes Drawing 2, replaces the original sheet. In Drawing 2, the previously un-labeled items of the burst assembly/burst disassembly buffers are now labeled with numbered callouts and the callouts are re-sequenced in the order of their occurrence within the specification.

Attachment: Annotated Sheet Showing Changes to Drawing 2
Replacement Sheet for Drawing 2

CHANG FIGURE 4 Partial Reproduction with Comments



QIAO requires that the label switch controller must also process burst delay information so as to make future configuration reservations for the switch to service the optical burst which will arrive on a different wavelength and at time typically occurring after the control packet has already left the node.

Control Packet Wavelength(s)

(An addition to CHANG)

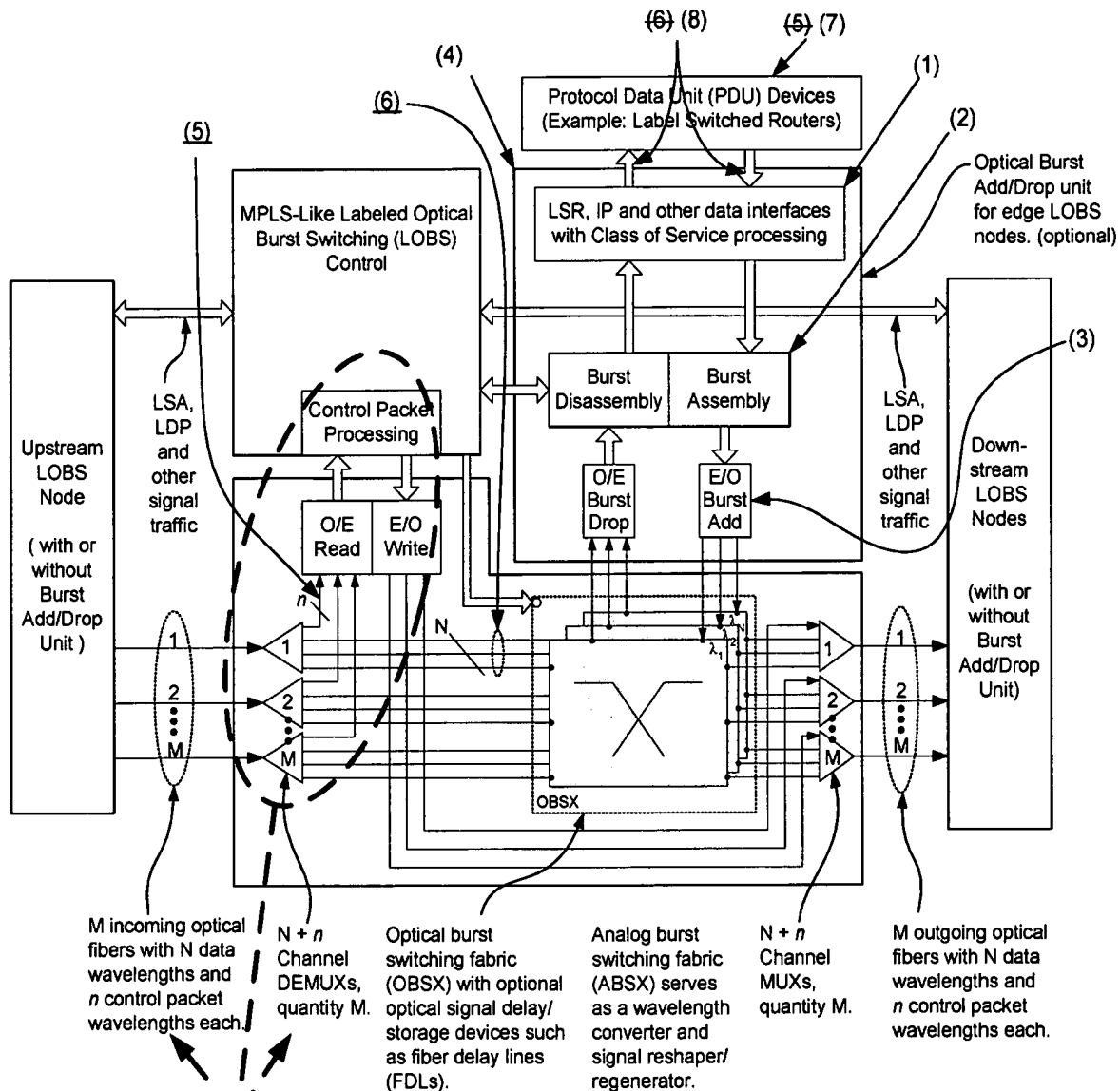
Optical Burst Wavelength(s)

QIAO does not require Burst Delay Devices (A subtraction from CHANG that CHANG cannot replicate and so does not anticipate)

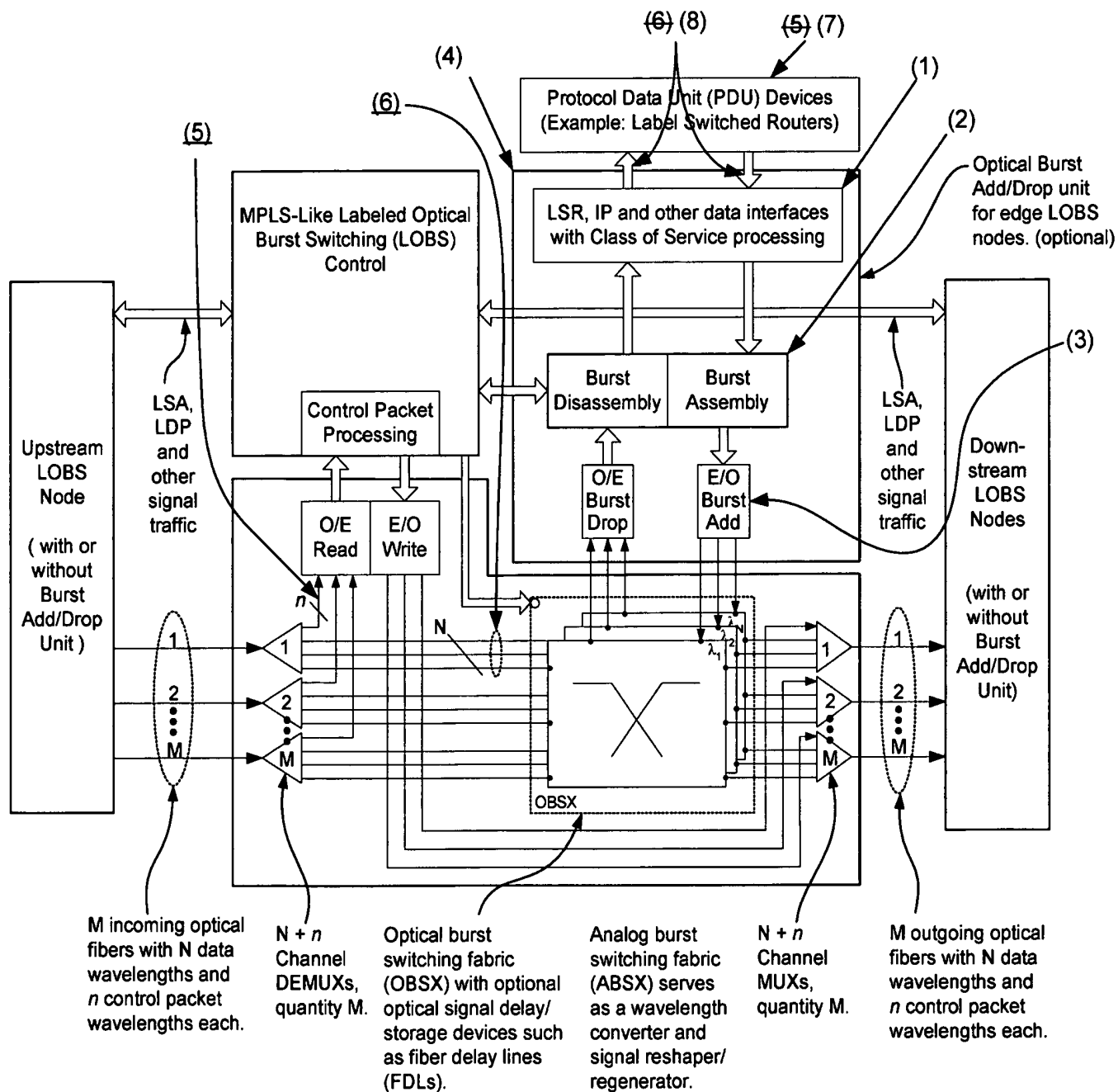
Diagram components and flow:

- NC&M** (Network Control and Management) connects to the **CIRCUIT SWITCHING CONTROLLER**.
- The **CIRCUIT SWITCHING CONTROLLER** sends control signals to the **LABEL SWITCH CONTROLLER WITH LOOK-UP TABLE**.
- The **LABEL SWITCH CONTROLLER WITH LOOK-UP TABLE** sends control signals to the **SWITCHING DEVICE**.
- The **SWITCHING DEVICE** is connected to **CCI** (Control Channel Interface) and **NCI** (Network Channel Interface).
- Control Packet Wavelength(s)** are input to the **LABEL SWITCH CONTROLLER WITH LOOK-UP TABLE**.
- Optical Burst Wavelength(s)** are input to the **SWITCHING DEVICE**.

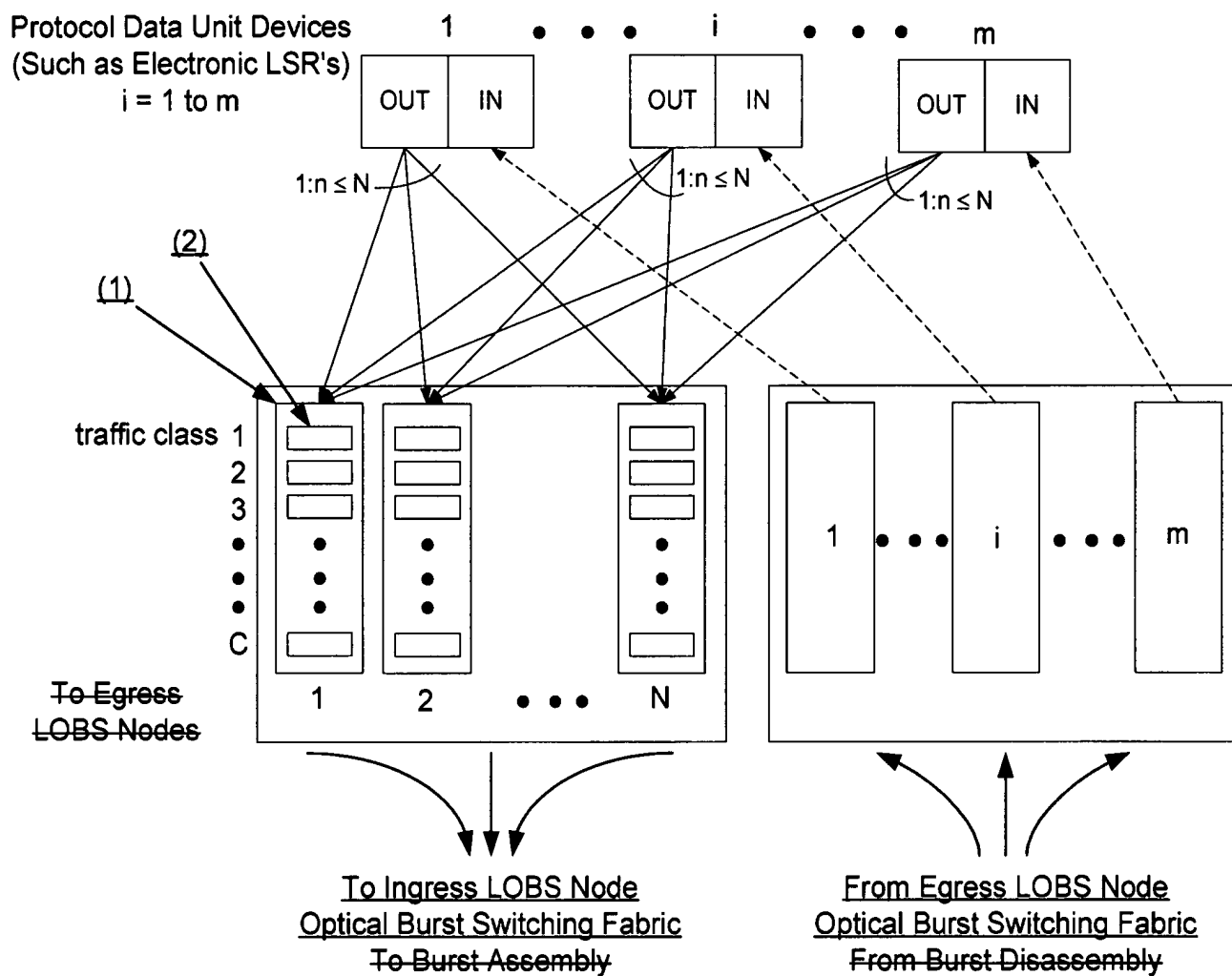
QIAO DRAWING #1 (With changes annotated with additional comments)



The captions and the connections shown above make it clear that (in contrast to CHANG), the Control Packet Processing is only connected to the *n control packet wavelengths (per incoming fiber)*. These wavelengths are distinct, i.e. out-of-band from the *N data wavelengths (per incoming fiber)*. QIAO also makes it clear that initial offset delays are explicitly used and communicated via the control packets and that the Control Packet Processing specifically addresses this information in determining how to control the Optical Burst Switching Fabric. Such additional processing and scheduling of bandwidth reservations within the switching device as required by the use of an initial offset between the burst and its out-of-band control packet, is not present in any IP router and so (the IP router 111, in fig. 3 CHANG) is not a sufficient art and so does not anticipate QIAO.



DRAWING 1



DRAWING 2